

**AMENDMENT UNDER 37 C.F.R. 1.116
EXPEDITED PROCEDURE
EXAMINING GROUP 2836
PATENT
APPLICATION 10/659,202
ATTORNEY DOCKET 2003P08454US (1009-346)**

REMARKS

Applicant respectfully thanks the Examiner for the consideration provided to this application, and respectfully requests reconsideration of this application.

Each of claims 1-3, 5, 10, 11, 16, 18, 23-25, 30, 34-36, and 38 has been amended for at least one reason unrelated to patentability, including at least one of: to explicitly present one or more elements, limitations, phrases, terms and/or words implicit in the claim as originally written when viewed in light of the specification, thereby not narrowing the scope of the claim; to detect infringement more easily; to enlarge the scope of infringement; to cover different kinds of infringement (direct, indirect, contributory, induced, and/or importation, etc.); to expedite the issuance of a claim of particular current licensing interest; to target the claim to a party currently interested in licensing certain embodiments; to enlarge the royalty base of the claim; to cover a particular product or person in the marketplace; and/or to target the claim to a particular industry.

Claims 1-42 are now pending in this application. Each of claims 1, 10, 16, 23, 30, and 34, is in independent form.

I. The Anticipation Rejections

Each of claims 1, 4, 10, 30, 34, and 37 was rejected as anticipated, and thus unpatentable, under 35 U.S.C. 102(b). In support of the rejection, various portions of U.S. Patent 5,744,939 ("Leppo") were applied. These rejections are respectfully traversed as moot in view of the present claim amendments.

Specifically, claim 1, from which claim 4 depends, states, *inter alia*, yet no substantial evidence has been presented that the applied portions of Leppo teach, "an arc fault determination circuit adapted to determine an arc fault based upon the temperature compensated signal". For at least this reason, it is respectfully submitted that the rejection of claim 1 is unsupported by Leppo and should be withdrawn. Also, the rejection of claim 4, which ultimately depends from independent claim 1, is unsupported by Leppo and also should be withdrawn.

Claim 10 states, *inter alia*, yet no substantial evidence has been presented that the applied portions of Leppo teach, "an arc fault determination circuit adapted to receive a temperature

**AMENDMENT UNDER 37 C.F.R. 1.116
EXPEDITED PROCEDURE
EXAMINING GROUP 2836
PATENT
APPLICATION 10/659,202
ATTORNEY DOCKET 2003P08454US (1009-346)**

compensated voltage signal from the at least one thermistor, the circuit adapted provide a signal to trip a circuit breaker responsive to responsive to a determination of an arc fault by the circuit, the determination of the arc fault based upon the temperature compensated voltage signal". For at least this reason, it is respectfully submitted that the rejection of claim 1 is unsupported by Leppo and should be withdrawn.

Claim 30 states, *inter alia*, yet no substantial evidence has been presented that the applied portions of Leppo teach, "the voltage signal provided to an arc fault determination circuit adapted to determine an arc fault based upon the thermally proportional voltage signal, the circuit adapted to cause a circuit breaker to trip responsive to the arc fault". For at least this reason, it is respectfully submitted that the rejection of claim 1 is unsupported by Leppo and should be withdrawn.

Specifically, claim 34, from which claim 37 depends, states, *inter alia*, yet no substantial evidence has been presented that the applied portions of Leppo teach, "coupling an arc fault determination circuit to the temperature sensitive compensation circuit, the arc fault determination circuit adapted to cause a circuit breaker to trip responsive to an arc fault determination, the arc fault determination based upon an output of the temperature sensitive compensation circuit". For at least this reason, it is respectfully submitted that the rejection of claim 34 is unsupported by Leppo and should be withdrawn. Also, the rejection of claim 37, which ultimately depends from independent claim 34, is unsupported by Leppo and also should be withdrawn.

II. The Obviousness Rejections

Each of claims 2, 3, 5-9, 11-29, 31-33, 35, 36, 38-42 was rejected under 35 U.S.C. 103(a) as being obvious, and thus unpatentable, over various combinations of U.S. Patent 5,744,939 ("Leppo"), U.S. Patent 2004/0070495 ("Chu"), U.S. Patent 3,817,453 ("Pinckaers"), and/or U.S. Patent 5,475,371 ("Dunk"). Each of these rejections is respectfully traversed as moot in view of the present claim amendments.

**AMENDMENT UNDER 37 C.F.R. 1.116
EXPEDITED PROCEDURE
EXAMINING GROUP 2836
PATENT
APPLICATION 10/659,202
ATTORNEY DOCKET 2003P08454US (1009-346)**

As indicated, *supra*, claim 1, from which claims 2, 3, and 5-9 ultimately depends, states, *inter alia*, yet no substantial evidence has been presented that the applied portions of the relied-upon references teach, "an arc fault determination circuit adapted to determine an arc fault based upon the temperature compensated signal". For at least this reason, it is respectfully submitted that each rejection of claims 2, 3, and 5-9, each of which ultimately depends from independent claim 1, is unsupported by the applied portions of the relied-upon references and should be withdrawn.

Claim 10, from which claims 11-15 ultimately depends, states, *inter alia*, yet no substantial evidence has been presented that the applied portions of the relied-upon references teach, "an arc fault determination circuit adapted to receive a temperature compensated voltage signal from the at least one thermistor, the circuit adapted provide a signal to trip a circuit breaker responsive to responsive to a determination of an arc fault by the circuit, the determination of the arc fault based upon the temperature compensated voltage signal". For at least this reason, it is respectfully submitted that each rejection of claims 11-15, each of which ultimately depends from independent claim 10, is unsupported by the applied portions of the relied-upon references and should be withdrawn.

Claim 16, from which claims 17-22 ultimately depends, states, *inter alia*, yet no substantial evidence has been presented that the applied portions of the relied-upon references teach, "an operational amplifier adapted for conditioning a thermally compensated voltage signal before the thermally compensated voltage signal enters a detection circuit of an arc fault circuit interrupter device". Applicant notes that the present Office Action states, at Page 4 (emphasis added):

Although Leppo offers temperature compensation of a sensed current for battery cell protection, AFCI is not mentioned. In-Spite-Of-The-Fact, it is the opinion of the Examiner that in view of Dunk et al., which teach temperature compensation of a sensed signal for fault detection and protection of a system, it would have been obvious to apply temperature compensation to any fault detecting scheme, such as, an AFCI fault detecting scheme, thereby, minimizing the effect of

**AMENDMENT UNDER 37 C.F.R. 1.116
EXPEDITED PROCEDURE
EXAMINING GROUP 2836
PATENT
APPLICATION 10/659,202
ATTORNEY DOCKET 2003P08454US (1009-346)**

temperature change upon sensor output, resulting in increased accuracy and reliability of the fault protection scheme.

Applicant respectfully notes that this unsupported assertion presents no evidence that any applied portion of any relied-upon reference teaches, "an operational amplifier adapted for conditioning a thermally compensated voltage signal before the thermally compensated voltage signal enters a detection circuit of an arc fault circuit interrupter device". For at least these reasons, it is respectfully submitted that the rejection of claim 16 is unsupported by the applied portions of the relied-upon references and should be withdrawn. Also, each rejection of claims 17-22, each of which ultimately depends from independent claim 16, is unsupported by the applied portions of the relied-upon references and should be withdrawn.

Claim 23, from which claims 24-29 ultimately depends, states, *inter alia*, yet no substantial evidence has been presented that the applied portions of the relied-upon references teach, "tripping a circuit breaker based upon a determined arc fault , the arc fault determined based upon the thermally proportional voltage signal". For at least these reasons, it is respectfully submitted that the rejection of claim 23 is unsupported by the applied portions of the relied-upon references and should be withdrawn. Also, each rejection of claims 24-29, each of which ultimately depends from independent claim 23, is unsupported by the applied portions of the relied-upon references and should be withdrawn.

Claim 30, from which claims 31-33 ultimately depends, states, *inter alia*, yet no substantial evidence has been presented that the applied portions of the relied-upon references teach, "the voltage signal provided to an arc fault determination circuit adapted to determine an arc fault based upon the thermally proportional voltage signal, the circuit adapted to cause a circuit breaker to trip responsive to the arc fault". For at least these reasons, it is respectfully submitted that the rejection each rejection of claims 31-33, each of which ultimately depends from independent claim 30, is unsupported by the applied portions of the relied-upon references and should be withdrawn.

Specifically, claim 34, from which each of claims 35, 36, and 38-42 ultimately depends, states, *inter alia*, yet no substantial evidence has been presented that the applied portions of the

To: 571-273-8300

From: Kelly B at Michael Haynes PLC

Pg 17/19 12/17/07 12:57 pm

RECEIVED
CENTRAL FAX CENTER

DEC 17 2007

**AMENDMENT UNDER 37 C.F.R. 1.116
EXPEDITED PROCEDURE
EXAMINING GROUP 2836
PATENT
APPLICATION 10/659,202
ATTORNEY DOCKET 2003P08454US (1009-346)**

relied-upon references teach, "coupling an arc fault determination circuit to the temperature sensitive compensation circuit, the arc fault determination circuit adapted to cause a circuit breaker to trip responsive to an arc fault determination, the arc fault determination based upon an output of the temperature sensitive compensation circuit". For at least this reason, it is respectfully submitted that the rejection of claim 35, 36, and 38-42, which ultimately depends from independent claim 34, is unsupported by the applied portions of the relied-upon references and also should be withdrawn.

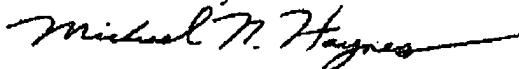
CONCLUSION

It is respectfully submitted that the application is in clear condition for allowance. Reconsideration, withdrawal of all grounds of rejection, and issuance of a Notice of Allowance are earnestly solicited.

The Office is hereby authorized to charge any additional fees or credit any overpayments under 37 C.F.R. 1.16 or 1.17 to Deposit Account 50-2504. The Examiner is invited to contact the undersigned at 434-972-9988 to discuss any matter regarding this application.

Respectfully submitted,

Michael Haynes PLC



Michael N. Haynes

Registration 40,014

Date: 17 December 2007

1341 Huntersfield Close

Keswick, VA 22947

Telephone: 434-972-9988

Faxsimile: 815-550-8850